[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0475; Directorate Identifier 13-NE-18-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain General Electric Company (GE) model GEnx-2B67 and GEnx-2B67B turbofan engines. This proposed AD was prompted by the original equipment manufacturer's disclosure that certain critical rotating life-limited parts (LLPs) used in Boeing 747-8 flight tests had consumed more cyclic life than they would have in revenue flight cycles. These parts were then installed into engines and introduced into revenue service without adjustment to remaining cyclic life. This proposed AD would require a one-time adjustment to the cycle counts of those LLPs to account for the additional low cycle fatigue (LCF) life consumed during flight tests. We are proposing this AD to prevent the failure of critical rotating LLPs, uncontained engine failure, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact General Electric Company, GE Aviation, Room 285, One Neumann Way, Cincinnati, OH; phone: 513-552-3272; email: geae.aoc@ge.com. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: Jason.Yang@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2013-0475; Directorate Identifier 13-NE-18-AD" at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We propose to adopt a new AD for certain GE model GEnx-2B67 and GEnx-2B67B turbofan engines. This proposed AD was prompted by GE's disclosure that certain critical rotating LLPs used in Boeing 747-8 flight tests had consumed more cyclic life than they would have in revenue flight cycles. This additional life usage was due to multiple changes in the engine rotor speed and thermal environment that are not performed in a typical revenue service flight. These parts were then installed into engines and introduced into revenue service without adjustment to remaining cyclic life. This proposed AD would require a one-time adjustment to the cycle counts of those LLPs to account for the additional LCF life consumed. This condition, if not corrected, could result in the failure of critical rotating LLPs, uncontained engine failure, and damage to the airplane.

Relevant Service Information

We reviewed GE Service Bulletin (SB) No. 72-0116, Revision 1, dated April 23, 2013. The SB lists each affected critical rotating LLP by part number and serial number and prescribes the exact number of cycles to add to the cycle count for each affected LLP as a one-time adjustment. The list is extensive.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require a one-time adjustment to the cycle counts of certain critical rotating LLPs.

Costs of Compliance

We estimate that this proposed AD affects 4 engines installed on airplanes of U.S. registry. We also estimate that it would take about 1 hour per engine to comply with this proposed AD. The average labor rate is $85 per hour. The prorated cost of required parts would be about $50,000 per engine. Based on these figures, we estimate the cost of the proposed AD to U.S. operators to be $200,340.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

General Electric Company: Docket No. FAA-2013-0475; Directorate Identifier 2013-NE-18-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to certain serial number General Electric Company (GE) model GEnx-2B67 and GEnx-2B67B turbofan engines. The affected GEnx-2B serial numbers are: 959-102 through 959-104; 959-107; 959-110 through 959-111; 959-113 through 959-118; 959-121; 959-124 through 959-133; 959-159 through 959-161; 959-164; 959-176; and 959-191.

(d) Unsafe Condition

This AD was prompted by GE's report that certain critical rotating life-limited parts (LLPs) used in Boeing 747-8 flight tests had consumed more cyclic life than they would have in revenue service flights. These parts were then installed into engines and introduced into revenue service without adjustment to remaining cyclic life. We are issuing this AD to prevent the failure of critical rotating LLPs, uncontained engine failure, and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Adjust the Cycle Counts of Certain Critical Rotating LLPs

Within 30 days after the effective date of this AD, perform a one-time adjustment to the cycle count of each part identified in paragraph 4, Appendix A, of GE Service Bulletin (SB) No. 72-0116, Revision 1, dated April 23, 2013.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For more information about this AD, contact Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: Jason.Yang@faa.gov.

(2) Refer to GE SB No. 72-0116, Revision 1, dated April 23, 2013 for related information.

(3) For service information identified in this proposed AD, contact General Electric Company, GE Aviation, Room 285, One Neumann Way, Cincinnati, OH; phone: 513-552-3272; email: geae.aoc@ge.com. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on July 25, 2013.

Frank P. Paskiewicz,
Acting Director,
Aircraft Certification Service.

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